



# SMS3230

## State-of-the-Art, Exceptionally Small Size ISDB-Tmm Single-Die MDTV Receiver

For Mobile and Portable Applications

*Supports Japan's new ISDB-Tmm mobile standard*

The SMS3230 is a new member of Siano's ISDB-T receiver chip family manufactured in the 65nm process, targeting the emerging ISDB-Tmm market. It is the successor of the multi-standard, multi-band SMS2270 receiver, boasting reduced size, improved unparalleled receiver performance and overall highly-attractive system cost. The SMS3230 supports ISDB-Tmm as well as ISDB-T 1-Seg, 3-Seg, ISDB-T Full Seg, ISDB-Tsb.

ISDB-Tmm is a newly-developed service and technology that is promoted and launched by Japan's leading cellular operators, becoming operational in the spring of 2012. It will offer a combination of linear broadcast TV together with advance services such as offline content downloading, interactive services, personalized content and more.

Siano's SMS3230 is the best IC receiver supporting Japan's new ISDB-Tmm (mobile multimedia broadcasting standard) whereby an ultra-small footprint packaging option (4x4mm BGA) enables the chip to be easily integrated into a variety of handheld devices. These include mobile phones, cellular data-cards, navigation devices, UMPCs, MIDs, PDAs, and portable video and media players. In addition, embedded hardware support for Japan's Full-Seg B-CAS algorithm enables Siano to provide a comprehensive Full Seg solution to the Japanese market – all within the same product.

The SMS3230 is complemented by Siano's Host-API software package that includes drivers and libraries for popular host processors and operating systems. Input to the SMS3230 is the broadcasted RF signal received by the antenna, and output is a demodulated, selected channel stream. This data is fed into an application processor that is capable of video and audio decompression and rendering.

### HIGHLIGHTS

- ISDB-Tmm support
- Embedded HW B-CAS
- Extremely small size - 4x4x0.9mm BGA
- Ultra low system cost
- Extremely high sensitivity
- Exceptionally low power consumption - <140 mW

### TARGET MARKETS

- Japan, Latin America

### TYPICAL APPLICATIONS

- Mobile phones
- PMPs, PNDs & portable computers
- PDAs & smartphones
- Mobile Internet Devices (MIDs)



enabling TV EVERYWHERE

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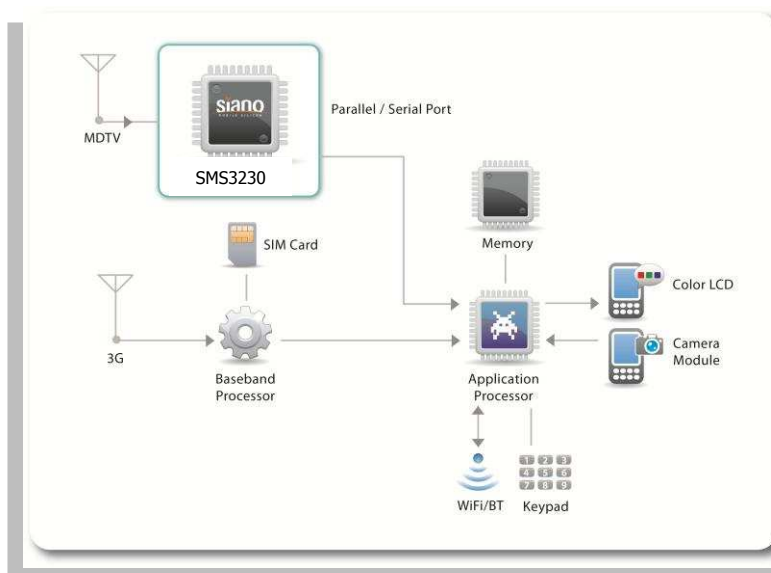
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*Supports Japan's new ISDB-Tmm mobile standard*



### KEY FEATURES

- No external active components
- Advanced 65nm manufacturing process
- Superior mobility algorithms
- Other members in this product family:
  - SMS3270 - ISDB-T Full-Seg, Tmm-Tsb
    - Target STBs and large-screen DTVs
  - SMS3130 - cost optimized ISDBT 1-Seg for mobile devices
- On-chip PID and IP filtering
- RoHS compliant
- Complete MDTV receiver solution:
  - Device drivers
  - Middleware for popular host processors
  - Middleware for CPUs



### Integration of SMS3230 into a Mobile Phone

#### SUPPORTED STANDARDS

- **ISDB-Tmm**, ISDB-T 1-Seg, ISDB-T Full Seg, and ISDB-Tsb

#### SUPPORTED BANDS

- L-VHF/VHF (64 -240 MHz)
- UHF (470-862 MHz)

#### SUPPORTED INTERFACES

- SPI
- Serial Transport Stream (TS)
- SDIO
- General Serial (I<sup>2</sup>C-like) Control